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Pulpwood Production in the Northeast--1989

Richard H. Widmann

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Abstract

The 1989 annual assessment of pulpwood production and receipts for the 14 states in the Northeast Region shows that total pulpwood production was up by less than 1 percent since 1988. Total production in 1989 was 9,535,700 cords. Roundwood production rose by 2 percent to 6,860,100 cords, and production of manufacturing residue chips for pulp declined by nearly 3 percent to 2,675,600 cords. The production of roundwood exceeded that of any preceding year. Harvesting intensity was highest in Maine, where an average of 17 cubic feet of roundwood was harvested per acre of timberland.

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Introduction

This annual report is based on a canvass of all pulpmills in the Northeast that use wood as a basic raw material to make pulp for the production of paper, insulation board, and hardboard products. Shipments outside the Northeast Region are traced by exchanging information with neighboring forest experiment stations that conduct similar canvasses, and by canvassing pulpmills in adjacent Canadian provinces.

The statistics for production are based on mill receipts of roundwood and manufacturing plant residues.[1] These receipts are subject to year-to-year fluctuations in wood inventory. Mill receipts of pulpwood from roundwood are reported by county where harvested. However, pulpwood from plant residues cannot be traced beyond the state where the residues were produced. Some of the logs from which the residues came probably were harvested in states other than the one in which they were processed. Therefore, the volume of pulpwood produced from plant residues in a state may not be directly linked to the sawlog harvest for the state.

Total Production

Pulpwood production in the 14 Northeastern States totaled 9,535,700 cords during 1989. This was the fourth consecutive year production increased, up by less than one-half of a percent or 40,100 cords (Fig.1). All of the increase can be attributed to a rise in roundwood production, which rose by 2 percent to a new record high. Production from manufacturing residues was off by nearly 3 percent. This continued high level of production results from the continued strength of the paper industry and high utilization of mill capacity.

In the New England States, New Hampshire and Vermont experienced their fourth year of increased pulpwood production. Increases in these states offset declines in Maine, where production dropped by 3 percent over the last 2 years. Among other major pulpwood producing states in the Northeast, Pennsylvania, Ohio, West Virginia, Maryland, and Kentucky experienced increased production, up by 1, 3, 4, 5, and 7 percent, respectively. Production in New York declined by 7 percent. The drop of production in New York can be attributed mostly to a decline in roundwood production.

Percent Change in Total Production Compared to 1988

	Percent		*Percent*
Connecticut	- 3	New Jersey	- 50
Delaware	+ 55	New York	- 7
Kentucky	+ 7	Ohio	+ 3
Maine	- 2	Pennsylvania	+ 1
Maryland	+ 5	Rhode Island	+ 146
Massachusetts	+ 4	Vermont	+ 9
New Hampshire	+ 8	West Virginia	+ 4

Roundwood

The production of roundwood rose to 6,860,100 cords, a nearly 2 percent rise from 1988. All of this gain was from a 110,300-cord increase in softwood species. Roundwood from hardwood species accounted for 55 percent of the roundwood production and remained almost unchanged with only a 600 cord decrease.

The softwood roundwood harvest totaled 3,066,900 cords. The majority, 53 percent, was from spruce and fir species. In recent years, the spruce and fir portion of softwood roundwood has declined, and the portion from pine and the hemlock/tamarack species group has increased. In 1989, pine accounted for 24 percent of softwood roundwood, and the hemlock and tamarack species group accounted for 23 percent.

The harvest of hardwoods for pulpwood totaled 3,793,200 cords. Although production remained almost unchanged from the previous year, the trend has been for increased amounts of hardwoods used for pulp. Six states set new records for hardwood pulp production: Maryland, Kentucky, New Hampshire, Pennsylvania, Vermont, and West Virginia.

Chips from Manufacturing Residues

Manufacturing residue chips accounted for 28 percent of the total pulpwood production. These chips were produced from the slabs and edgings generated at sawmills and from byproducts at other wood-using plants. The production of pulpwood from manufacturing residues was 2,675,600 cords, down by 70,200 cords from 1988, but still above that of 1987. Residues produced from softwoods decreased, while residues from hardwoods increased slightly. Production of pulpwood from residues also decreased in Maryland as residues from both

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[1] Definitions of terms used in this report are in the Appendix. Note that whole-tree chips are included as roundwood.

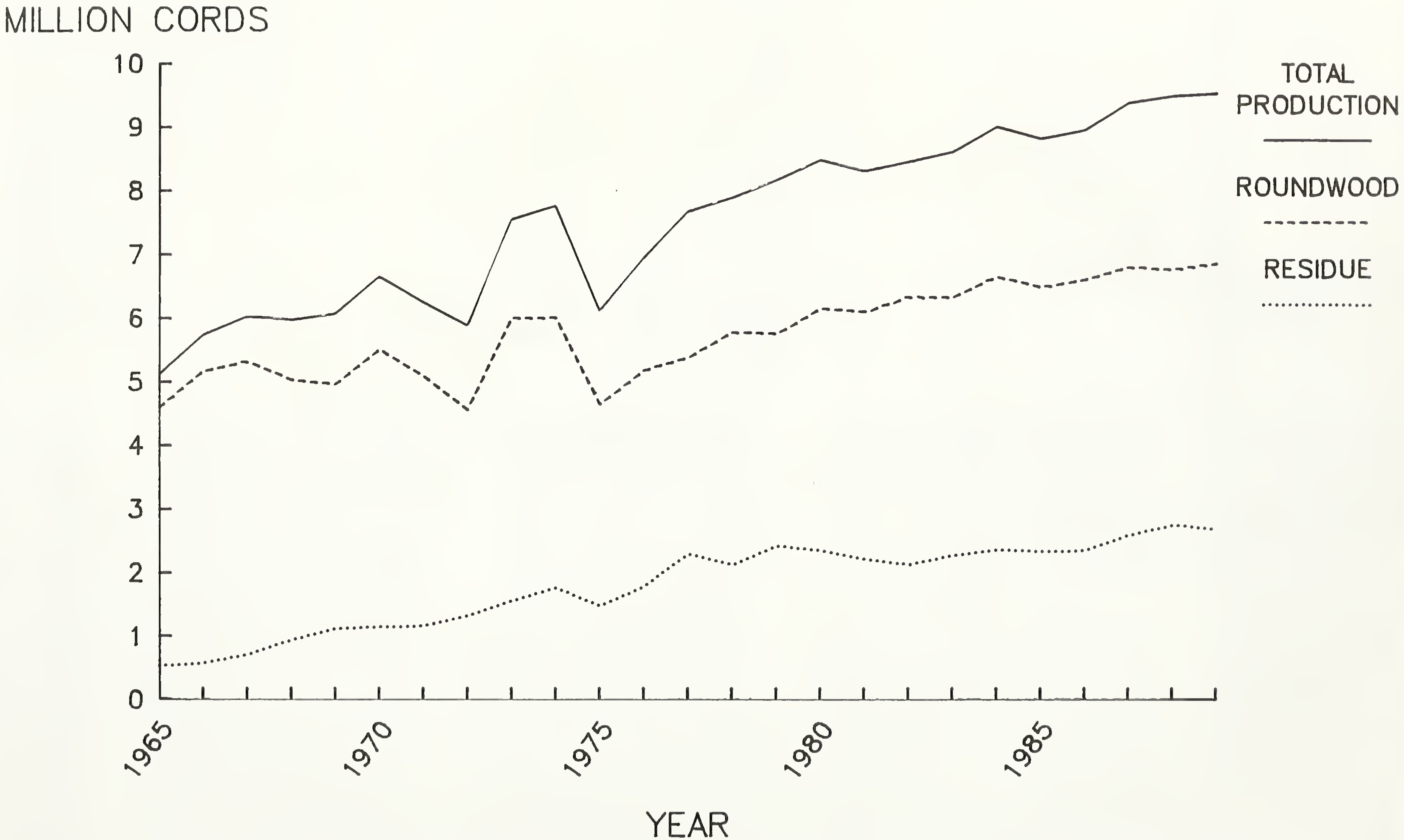

Figure 1.--Total roundwood, and manufacturing residue production in the Northeast, 1965-89.

softwoods and hardwoods declined by 20 percent. These decreases were caused by a combination of factors including: increased competition for residues from other uses such as industrial fuel and mulch, and reduced lumber production at one large mill. The production of residues increased in Kentucky, Ohio, and Pennsylvania. In each of these states, pulpwood from residues exceeded that of any previous year.

Consumption

Consumption at Northeastern pulpmills totaled 10.1 million cords in 1989. This was slightly down from the previous year, but still only the second year when consumption exceeded 10 million cords. In 1989, the Northeast pulpmills consumed nearly 1/2 million cords more than were produced in the region; 1.1 million cords were shipped into the region and almost 600,000 cords were shipped out of the region.

During the year, two small pulpmills in New England stopped receiving wood. The first was a specialty paper mill in Vermont that switched to recycled fiber, and the second was a groundwood mill in Maine that stopped production.

Harvesting Intensity

The average pulpwood removed per acre of timberland in a state indicates pulpwood harvesting intensity. Maine had the highest pulpwood harvest rates in the Northeast with an average of 17 cubic feet of roundwood harvested per acre of timberland. New Hampshire and Vermont also have high harvest rates, each with approximately 8 cubic feet harvested per acre compared with Pennsylvania's 4 cubic feet and Kentucky's 2 cubic feet.

The average net annual growth on timberland in the Northeast is roughly 38 cubic feet of growing-stock volume per acre. The percentage of this average growth being used for pulpwood roundwood ranges from 46 in Maine to zero in Rhode Island. Across the entire Northeast, an average of 15.5 percent of the growth is harvested for pulp. These averages are broad measures of the growth and pulpwood removals in the Northeast. The actual data for a specific area within a state may vary considerably.

Appendix

Definition of Terms

Cord. See Standard cord.

Cord equivalent. A unit of measure that is applied to forms of wood other than roundwood, such as chips, slabs, edgings, and other manufacturing residues and equal to 85 cubic feet of solid wood or 1 cord.

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

Manufacturing plant residues. Wood materials, such as sawmill slabs and edgings, sawdust, veneer clippings and cores, post and pole trimming, and pulp screening generated from the manufacture of roundwood products.

Pulpwood. Roundwood, whole-tree chips, or manufacturing plant residues that are used for the production of woodpulp.

Pulpwood production. Roundwood and manufacturing plant residues used to make up woodpulp. These are either harvested or generated in the state or region.

Pulpwood receipts. Pulpwood received at woodpulp mills. These can originate from outside the state or region.

Pulpwood imports. Pulpwood receipts originating from outside the Northeast (14-state region).

Roundwood products. Logs, bolts, total-tree chips, mine timbers, fenceposts, poles, and similar timber products generated by harvesting trees for industrial or consumer use.

Softwoods. Coniferous trees, usually evergreen with needles or scalelike leaves.

Standard cord. A unit of measure for stacked bolts of wood, encompassing 128 cubic feet of wood, bark, and air space. In the Northeast, the measure refers to a stack of wood containing 85 cubic feet, or 2.41 cubic meters, of solid wood. A standard cord commonly is referred to as a cord, as in this report. This is not the same as a face cord, commonly used in firewood marketing.

Timber products output. Production total from timber harvest and plant byproducts.

Whole-tree chips. Unbarked wood chips generated from the aboveground portion of a tree, including bolewood, limbs, and leaves.

Metric Equivalents

One standard cord = 85 cubic feet
(solid wood) = 2.41 cubic meters
(solid wood)

One cubic foot = 28,317 cubic
centimeters = 0.028 cubic meter

Conversion Factors Used for Green Roundwood

1 ton spruce-fir = 0.5556 cord
1 ton hemlock-tamarack = 0.5000 cord
1 ton pine (New England, New York, and Canada) = 0.5263 cord
1 ton aspen--yellow-poplar = 0.5263 cord
1 ton oak-hickory = 0.3571 cord
1 ton other hardwoods = 0.3846 cord

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Table 1.--Total production of pulpwood in the Northeast, by state and source, 1989

(In thousands of standard cords)[a]

State	From roundwood	From manufacturing residues	From all sources
Connecticut	1.9	4.0	5.9
Delaware	20.2	4.0	24.2
Kentucky	247.9	345.0	592.9
Maine	3,374.9	777.0	4,151.9
Maryland	186.4	113.4	299.8
Massachusetts	21.4	14.8	36.2
New Hampshire	450.3	197.9	648.2
New Jersey	.1	-	.1
New York	752.3	146.4	898.7
Ohio	361.5	267.4	628.9
Pennsylvania	711.1	432.4	1,143.5
Rhode Island	-	9.6	9.6
Vermont	418.9	67.0	485.9
West Virginia	313.2	296.7	609.9
Total	6,860.1	2,675.6	9,535.7

[a] Rough wood basis, equivalent to 85 ft^3 solid wood.

Table 2.--Production and receipts of pulpwood in the Northeast, by state and softwood and hardwood, 1989

(In thousands of standard cords)

State	Produced in state		Received in state		Net export(+) import(-)
	Softwood	Hardwood	Softwood	Hardwood	
Connecticut	2.6	3.3	-	-	+5.9
Delaware	20.6	3.6	-	-	+24.2
Kentucky	34.5	558.4	138.8	977.6	-523.5
Maine	2,709.5	1,442.4	3,130.0	1,714.1	-692.2
Maryland	182.8	117.0	(D)	(D)	-190.1
Massachusetts	28.3	7.9	-	-	+36.2
New Hampshire	336.3	311.9	122.1	417.1	+109.0
New Jersey	.1	-	-	-	+.1
New York	386.8	511.9	541.8	407.8	-50.9
Ohio	26.4	602.5	40.4	733.4	-144.9
Pennsylvania	52.9	1,090.6	190.5	1,173.1	-220.1
Rhode Island	4.6	5.0	-	-	+9.6
Vermont	270.3	215.6	9.3	-	+476.6
West Virginia	76.0	533.9	(D)	(D)	+609.9
Total	4,131.7	5,404.0	4,357.9	5,728.0	-550.2

(D) Data withheld to avoid disclosure for individual mills.

Table 3.--Pulpwood production from roundwood in the Northeast, by state, softwood and hardwood, and destination of shipment, 1989

(In thousands of standard cords)

State	Softwood				Hardwood				All species
	Retained in state	Shipped out of state		Total	Retained in state	Shipped out of state		Total	
		Northeast states	Outside Northeast[a]			Northeast states	Outside Northeast[a]		
Connecticut	-	1.9	-	1.9	-	*	-	*	1.9
Delaware	-	9.5	10.4	19.9	-	0.3	*	0.3	20.2
Kentucky	7.3	1.9	18.6	27.8	176.1	43.7	0.3	220.1	247.9
Maine	1,981.7	2.6	4.3	1,988.6	1,382.9	-	3.4	1,386.3	3,374.9
Maryland	32.4	39.0	38.1	109.5	62.4	10.3	4.2	76.9	186.4
Massachusetts	-	20.7	-	20.7	-	.7	-	.7	21.4
New Hampshire	28.2	153.3	3.2	184.7	186.7	78.9	-	265.6	450.3
New Jersey	-	.1	-	.1	-	-	-	-	.1
New York	346.1	1.8	-	347.9	318.4	20.9	65.1	404.4	752.3
Ohio	21.1	5.1	-	26.2	328.9	6.4	-	335.3	361.5
Pennsylvania	28.8	14.1	-	42.9	628.6	39.6	-	668.2	711.1
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	9.3	199.2	13.9	222.4	-	196.5	-	196.5	418.9
West Virginia	-	62.8	11.5	74.3	-	97.3	141.6	238.9	313.2
Total	2,454.9	512.0	100.0	3,066.9	3,084.0	494.6	214.6	3,793.2	6,860.1

*Less than 50 cords.

[a] Includes shipments to Canada.

Table 4.--Pulpwood chip production from manufacturing residues in the Northeast, by state, softwood and hardwood, and destination of shipment, 1989[a]

(In thousands of standard-cord equivalents)

State	Softwood				Hardwood				All species
	Produced and retained in state	Shipped out of state		Total	Produced and retained in state	Shipped out of State		Total	
		Northeast states	Outside Northeast[b]			Northeast states	Outside Northeast[b]		
Connecticut	-	0.7	-	0.7	-	3.3	-	3.3	4.0
Delaware	-	.7	-	.7	-	3.3	-	3.3	4.0
Kentucky	0.5	5.0	1.2	6.7	274.4	60.2	3.7	338.3	345.0
Maine	678.1	-	42.8	720.9	51.5	4.6	-	56.1	777.0
Maryland	18.7	42.7	11.9	73.3	12.6	27.3	.2	40.1	113.4
Massachusetts	-	7.6	-	7.6	-	7.2	-	7.2	14.8
New Hampshire	64.6	87.0	-	151.6	22.5	23.8	-	46.3	197.9
New Jersey	-	-	-	-	-	-	-	-	-
New York	38.7	.2	-	38.9	46.3	56.1	5.1	107.5	146.4
Ohio	.2	-	-	.2	247.2	20.0	-	267.2	267.4
Pennsylvania	7.8	2.2	-	10.0	382.2	40.2	-	422.4	432.4
Rhode Island	-	4.6	-	4.6	-	5.0	-	5.0	9.6
Vermont	-	41.9	6.0	47.9	-	19.1	-	19.1	67.0
West Virginia	-	.4	1.3	1.7	-	93.7	201.3	295.0	296.7
Total	808.6	193.0	63.2	1,064.8	1,036.7	363.8	210.3	1,610.8	2,675.6

[a] Includes sawmill slabs and edgings, sawdust, veneer cores, and post and piling trimmings.
[b] Includes shipments to Canada.

Table 5.--Pulpwood receipts from roundwood in the Northeast, by state, softwood and hardwood, and origin of shipment, 1989

(In thousands of standard cords)

State[a]	Softwood				Hardwood				All species
	Cut in state	Received from outside state			Cut in state	Received from outside state			
		Northeast states	Outside Northeast[b]	Total		Northeast states	Outside Northeast[b]	Total	
Kentucky	7.3	-	84.6	91.9	176.1	-	264.2	440.3	532.2
Maine	1,981.7	222.8	63.2	2,267.7	1,382.9	53.3	182.3	1,618.5	3,886.2
Maryland	32.4	(D)	(D)	(D)	62.4	(D)	(D)	(D)	(D)
New Hampshire	28.2	16.1	-	44.3	186.7	203.4	-	390.1	434.4
New York	346.1	139.7	1.6	487.4	318.4	19.7	.2	338.3	825.7
Ohio	21.1	12.7	-	33.8	328.9	59.5	-	388.4	422.2
Pennsylvania	28.8	50.5	57.0	136.3	628.6	37.9	1.4	667.9	804.2
Vermont	9.3	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)
Total	2,454.9	512.0	247.1	3,214.0	3,084.0	494.6	457.3	4,035.9	7,249.9

[a] States with no pulpmills are omitted.

[b] Includes shipments from Canada.

(D)Data withheld to avoid disclosure for individual mills.

Table 6.--Pulpwood chip receipts from manufacturing residues in the Northeast, by state, softwood and hardwood, and origin of shipment, 1989[a]

(In thousands of standard cord equivalents)

State[b]	Softwood				Hardwood				All species
	Produced in state	Received from outside state			Produced in state	Received from outside state			
		Northeast states	Outside Northeast[c]	Total		Northeast states	Outside Northeast[c]	Total	
Kentucky	0.5	-	46.4	46.9	274.4	0.9	262.0	537.3	584.2
Maine	678.1	112.9	71.3	862.3	51.5	36.5	7.6	95.6	957.9
Maryland	18.7	(D)	(D)	(D)	12.6	(D)	(D)	(D)	(D)
New Hampshire	64.6	13.2	-	77.8	22.5	4.5	-	27.0	104.8
New York	38.7	15.7	-	54.4	46.3	23.2	-	69.5	123.9
Ohio	.2	6.4	-	6.6	247.2	97.3	.5	345.0	351.6
Pennsylvania	7.8	43.3	3.1	54.2	382.2	106.8	16.2	505.2	559.4
Vermont	-	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)
Total	808.6	193.0	142.3	1,143.9	1,036.7	363.8	291.6	1,692.1	2,836.0

[a] Includes sawmill slabs and edgings, sawdust, veneer cores, and post and pole trimmings.

[b] States with no pulpmills are omitted.

[c] Includes shipments from Canada.

(D)Data withheld to avoid disclosure of data from individual mills.

Table 7.--Pulpwood production from roundwood received from states outside the Northeast, by state (or province) of origin and softwood and hardwood, 1989

(In thousands of standard cords)

Receiving state[a]	State or province of origin	Softwood	Hardwood	All species
Kentucky	Alabama	0.6	3.6	4.2
	Illinois	9.5	37.1	46.6
	Indiana	-	11.1	11.1
	Mississippi	39.4	54.5	93.9
	Missouri	-	13.3	13.3
	Tennessee	35.1	144.6	179.7
Maine	New Brunswick	35.3	176.5	211.8
	Quebec	27.9	5.8	33.7
Maryland	Virginia	40.7	9.2	49.9
New York	Ontario	.3	-	.3
	Quebec	1.3	.2	1.5
Pennsylvania	Virginia	57.0	1.4	58.4
All States		247.1	457.3	704.4

[a] States with no extraregional receipts are omitted.

Table 8.--Pulpwood chip receipts from wood-using manufacturing plants outside the Northeast, by state (or province) of origin and softwood and hardwood, 1989[a]

(In thousands of standard cord equivalents)

Receiving state[b]	State or province of origin	Softwood	Hardwood	All species
Kentucky...............	Arkansas	-	9.6	9.6
	Illinois	-	12.2	12.2
	Indiana	-	75.6	75.6
	Mississippi	42.6	33.4	76.0
	Missouri	3.8	72.3	76.1
	Tennessee	-	58.9	58.9
Maine..................	New Brunswick	9.3	1.4	10.7
	Quebec	62.0	6.2	68.2
Maryland...............	Virginia	21.5	5.3	26.8
Ohio...................	Indiana	-	.5	.5
Pennsylvania...........	Virginia	3.1	16.2	19.3
All states		142.3	291.6	433.9

[a] Includes sawmill slabs and edgings, sawdust, veneer cores, and post and piling trimmings.
[b] States with no extraregional receipts are omitted.

Table 9.--Pulpwood production from roundwood in the Northeast, by state and species group, 1989

(In thousands of standard cords)

State	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Connecticut	-	-	1.9	1.9	-	-	-	-	1.9
Delaware	-	-	19.9	19.9	-	0.3	*	0.3	20.2
Kentucky	-	-	27.8	27.8	24.1	137.6	58.4	220.1	247.9
Maine	1,320.0	417.4	251.2	1,988.6	177.1	2.1	1,207.1	1,386.3	3,374.9
Maryland	-	-	109.5	109.5	.9	45.6	30.4	76.9	186.4
Massachusetts	1.3	3.5	15.9	20.7	*	-	.7	.7	21.4
New Hampshire	77.0	47.6	60.1	184.7	43.5	-	222.1	265.6	450.3
New Jersey	-	-	.1	.1	-	-	-	-	.1
New York	101.4	175.7	70.8	347.9	37.5	4.1	362.8	404.4	752.3
Ohio	-	-	26.2	26.2	30.6	157.9	146.8	335.3	361.5
Pennsylvania	-	.8	42.1	42.9	32.5	268.8	366.9	668.2	711.1
Vermont	133.3	62.3	26.8	222.4	4.4	-	192.1	196.5	418.9
West Virginia	-	-	74.3	74.3	13.3	47.6	178.0	238.9	313.2
Total	1,633.0	707.3	726.6	3,066.9	363.9	664.0	2,765.3	3,793.2	6,860.1

*Less than 50 cords.

Table 10.--Pulpwood production from roundwood in Kentucky and Ohio, by county and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
KENTUCKY									
Ballard	-	-	0.6	0.6	2.3	2.6	0.9	5.8	6.4
Butler	-	-	-	-	-	11.6	-	11.6	11.6
Caldwell	-	-	.5	.5	-	2.4	.7	3.1	3.6
Calloway	-	-	.9	.9	.5	2.5	2.8	5.8	6.7
Carlisle	-	-	-	-	4.6	3.7	4.2	12.5	12.5
Carter	-	-	-	-	.1	.3	.4	.8	.8
Casey	-	-	-	-	-	2.5	-	2.5	2.5
Crittenden	-	-	.7	.7	-	2.0	1.5	3.5	4.2
Graves	-	-	2.7	2.7	.8	10.5	6.0	17.3	20.0
Greenup	-	-	.6	.6	4.7	12.3	14.2	31.2	31.8
Hickman	-	-	-	-	2.6	1.1	1.0	4.7	4.7
Hopkins	-	-	-	-	-	.2	-	.2	.2
Knox	-	-	1.0	1.0	-	-	-	-	1.0
Laurel	-	-	-	-	-	22.5	-	22.5	22.5
Lewis	-	-	.3	.3	1.7	4.6	5.3	11.6	11.9
Letcher	-	-	-	-	-	-	.4	.4	.4
Livingston	-	-	.4	.4	1.7	2.6	4.3	8.6	9.0
Lyon	-	-	1.5	1.5	.9	7.1	6.9	14.9	16.4
McCracken	-	-	-	-	-	2.2	3.4	5.6	5.6
McCreary	-	-	6.6	6.6	-	-	-	-	6.6
Marshall	-	-	-	-	3.5	2.1	2.5	8.1	8.1
Ohio	-	-	-	-	-	40.3	-	40.3	40.3
Rowan	-	-	-	-	*	*	*	-	-
Trigg	-	-	-	-	.7	4.5	3.9	9.1	9.1
Whitley	-	-	12.0	12.0	-	-	-	-	12.0
Total	-	-	27.8	27.8	24.1	137.6	58.4	220.1	247.9

Continued

Table 10.--Continued

County[a]	Softwood				Hardwood				
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	All species
					OHIO				
Adams	-	-	*	-	0.9	2.4	2.8	6.1	6.1
Ashland	-	-	-	-	-	.2	.1	.3	.3
Ashtabula	-	-	-	-	-	-	*	*	*
Athens	-	-	3.5	3.5	.2	2.9	1.9	5.0	8.5
Belmont	-	-	-	-	*	.1	.1	.2	.2
Carroll	-	-	.5	.5	-	5.4	3.6	9.0	9.5
Clinton	-	-	-	-	.2	.4	.5	1.1	1.1
Columbiana	-	-	.1	.1	-	.3	3.6	3.9	4.0
Coshocton	-	-	-	-	-	11.2	7.5	18.7	18.7
Cuyahoga	-	-	-	-	-	2.4	1.7	4.1	4.1
Fairfield	-	-	-	-	.1	.2	.4	.7	.7
Gallia	-	-	2.6	2.6	2.9	7.7	8.9	19.5	22.1
Geauga	-	-	-	-	-	1.6	1.2	2.8	2.8
Guernsey	-	-	-	-	-	3.6	2.5	6.1	6.1
Hamilton	-	-	-	-	.1	.1	.2	.4	.4
Harrison	-	-	2.9	2.9	-	-	-	-	2.9
Highland	-	-	-	-	.1	.2	.3	.6	.6
Hocking	-	-	3.4	3.4	2.5	8.1	6.5	17.1	20.5
Holmes	-	-	-	-	-	2.1	1.4	3.5	3.5
Jackson	-	-	3.1	3.1	2.8	7.4	8.6	18.8	21.9
Jefferson	-	-	-	-	-	1.1	.8	1.9	1.9
Lake	-	-	-	-	-	1.0	3.0	4.0	4.0
Lawrence	-	-	1.4	1.4	5.3	14.2	16.3	35.8	37.2
Licking	-	-	-	-	-	5.7	3.7	9.4	9.4
Medina	-	-	-	-	-	.5	.3	.8	.8
Meigs	-	-	3.9	3.9	.1	.4	.4	.9	4.8
Monroe	-	-	-	-	-	.3	.2	.5	.5
Muskingum	-	-	*	-	*	5.5	3.6	9.1	9.1
Noble	-	-	-	-	-	14.7	9.8	24.5	24.5

Continued

Table 10.--Continued

County[a]	Softwood: Spruce and fir	Softwood: Hemlock and tamarack	Softwood: Pine	Softwood: Total	Hardwood: Aspen and yellow-poplar	Hardwood: Oak and hickory	Hardwood: Other hardwood	Hardwood: Total	All species
				OHIO					
Perry	-	-	-	-	1.0	3.7	2.5	7.2	7.2
Pickaway	-	-	-	-	*	.3	.1	.4	.4
Pike	-	-	0.5	0.5	2.8	7.3	8.5	18.6	19.1
Portage	-	-	-	-	-	.2	.1	.3	.3
Ross	-	-	*	-	1.7	4.5	5.1	11.3	11.3
Scioto	-	-	1.7	1.7	6.2	16.3	18.8	41.3	43.0
Stark	-	-	-	-	-	3.5	2.3	5.8	5.8
Summit	-	-	-	-	-	1.9	1.2	3.1	3.1
Tuscarawas	-	-	.9	.9	-	10.3	6.9	17.2	18.1
Union	-	-	-	-	-	.1	*	.1	.1
Vinton	-	-	.5	.5	3.7	9.7	11.1	24.5	25.0
Washington	-	-	1.2	1.2	*	*	.1	.1	1.3
Wayne	-	-	-	-	-	.4	.2	.6	.6
Total	-	-	26.2	26.2	30.6	157.9	146.8	335.3	361.5

[a] Counties with no production are omitted.

*Less than 50 cords.

Table 11.--Pulpwood production from roundwood in southern New England, by state, county, and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
					CONNECTICUT				
Fairfield	-	*	-	*	-	-	-	-	*
Hartford	-	0.2	-	0.2	*	-	*	*	0.2
Litchfield	-	1.6	-	1.6	*	-	*	*	1.6
New Haven	-	*	-	*	-	-	-	*	*
New London	-	*	-	*	-	-	-	*	*
Tolland	-	.1	-	.1	-	-	-	-	.1
Windham	-	*	-	*	-	-	-	*	*
Total	-	1.9	-	1.9	*	-	*	*	1.9
					MASSACHUSETTS				
Barnstable	*	-	-	*	-	-	-	-	*
Berkshire	1.3	1.2	0.4	2.9	*	-	*	*	2.9
Bristol	-	-	*	*	-	-	-	-	*
Essex	-	-	2.1	2.1	-	-	0.2	0.2	2.3
Franklin	-	.9	.1	1.0	*	-	-	*	1.0
Hampden	-	.3	-	.3	-	-	.1	.1	.4
Hampshire	-	.5	.4	.9	-	-	-	-	.9
Middlesex	-	-	2.1	2.1	-	-	*	*	2.1
Plymouth	-	-	.1	.1	-	-	.3	.3	.4
Worcester	-	.6	10.7	11.3	-	-	.1	.1	11.4
Total	1.3	3.5	15.9	20.7	*	-	0.7	0.7	21.4

[a] Counties with no production are omitted.

*Less than 50 cords.

Table 12.--Pulpwood production from roundwood in northern New England, by state, county, and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
MAINE									
Androscoggin	3.0	4.8	18.6	26.4	5.5	-	29.2	34.7	61.1
Aroostook	267.4	26.6	1.3	295.3	4.7	-	89.7	94.4	389.7
Cumberland	3.0	4.0	19.2	26.2	1.2	-	8.4	9.6	35.8
Franklin	62.7	11.3	12.3	86.3	23.9	-	117.0	140.9	227.2
Hancock	36.9	18.9	2.1	57.9	4.2	-	31.3	35.5	93.4
Kennebec	10.3	17.9	26.7	54.9	9.9	-	28.0	37.9	92.8
Knox	8.8	2.1	3.5	14.4	.6	-	1.6	2.2	16.6
Lincoln	13.1	5.8	13.5	32.4	1.8	-	2.9	4.7	37.1
Oxford	57.8	26.8	30.8	115.4	26.4	-	147.0	173.4	288.8
Penobscot	211.4	110.3	20.9	342.6	28.9	-	179.7	208.6	551.2
Piscataquis	271.8	28.6	7.5	307.9	32.7	-	131.2	163.9	471.8
Sagadahoc	1.9	1.8	6.9	10.6	.8	-	.4	1.2	11.8
Somerset	361.3	29.2	23.6	414.1	77.2	-	164.1	241.3	655.4
Waldo	37.9	13.2	10.1	61.2	10.2	-	15.8	26.0	87.2
Washington	43.5	35.5	1.9	80.9	23.5	-	218.3	241.8	322.7
York	.2	3.4	33.9	37.5	*	-	9.0	9.0	46.5
Total	1,391.0	340.2	232.8	1,964.0	251.5	-	1,173.6	1,425.1	3,389.1

Continued

Table 12.--Continued

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
NEW HAMPSHIRE									
Belknap	0.1	0.5	1.9	2.5	-	-	4.2	4.2	6.7
Carroll	1.3	13.0	24.0	38.3	*	-	40.5	40.5	78.8
Cheshire	*	3.8	0.8	4.6	-	-	.1	.1	4.7
Coos	56.1	8.6	1.6	66.3	3.0	-	139.4	142.4	208.7
Grafton	7.9	16.3	7.0	31.2	.1	-	54.1	54.2	85.4
Hillsborough	-	.4	1.6	2.0	-	-	.3	.3	2.3
Merrimack	*	.3	.4	.7	-	-	1.3	1.3	2.0
Rockingham	*	.2	4.9	5.1	-	-	.8	.8	5.9
Strafford	.1	.3	4.9	5.3	.1	-	.7	.8	6.1
Sullivan	1.8	1.1	.4	3.3	-	-	.3	.3	3.6
Total	67.3	44.5	47.5	159.3	3.2	-	241.7	244.9	404.2

Continued

Table 12.--Continued

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
				VERMONT					
Addison	0.4	0.3	0.4	1.1	0.1	-	0.6	0.7	1.8
Bennington	.9	.9	.8	2.6	.3	-	7.4	7.7	10.3
Caledonia	31.5	5.3	1.9	38.7	.6	-	32.7	33.3	72.0
Chittenden	.3	.1	1.9	2.3	.2	-	.4	.6	2.9
Essex	62.3	8.1	4.9	75.3	1.2	-	118.8	120.0	195.3
Franklin	1.2	2.5	1.5	5.2	.2	-	.5	.7	5.9
Lamoille	4.2	2.1	.5	6.8	*	-	.4	.4	7.2
Orange	6.1	13.8	5.7	25.6	.6	-	8.8	9.4	35.0
Orleans	16.8	21.4	1.7	39.9	-	-	15.9	15.9	55.8
Rutland	2.5	1.9	4.5	8.9	.5	-	2.8	3.3	12.2
Washington	5.1	.5	.7	6.3	.1	-	1.1	1.2	7.5
Windham	1.0	4.2	.9	6.1	.2	-	1.0	1.2	7.3
Windsor	1.0	1.2	1.4	3.6	.4	-	1.7	2.1	5.7
Total	133.3	62.3	26.8	222.4	4.4	-	192.1	196.5	418.9

[a] Counties with no production are omitted.
*Less than 50 cords.

Table 13.--Pulpwood production from roundwood in New York, by county and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Albany	0.4	0.3	0.4	1.1	0.1	-	0.1	0.2	1.3
Alleghany	-	-	.6	.6	-	*	.1	.1	.7
Broome	*	2.2	.1	2.3	.1	0.3	1.2	1.6	3.9
Cattaraugua	-	-	-	-	-	1.0	8.1	9.1	9.1
Cayuga	.2	-	-	.2	-	-	-	-	.2
Chautauqua	-	-	-	-	-	.1	6.7	6.8	6.8
Chemug	-	-	1.1	1.1	.2	.1	.7	1.0	2.1
Chenango	6.2	4.6	.2	11.0	-	-	-	-	11.0
Clinton	11.9	2.4	7.1	21.4	4.2	-	21.8	26.0	47.4
Columbia	-	.1	.6	.7	-	-	.1	.1	.8
Cortland	1.3	.1	-	1.4	-	-	.1	.1	1.5
Delaware	1.2	2.9	.2	4.3	*	2.4	15.5	17.9	22.2
Essex	2.8	12.2	14.6	29.6	2.9	-	39.9	42.8	72.4
Franklin	28.1	10.1	1.8	40.0	1.7	-	51.5	53.2	93.2
Fulton	.9	12.2	5.4	18.5	1.0	-	8.8	9.8	28.3
Greene	-	1.8	-	1.8	-	-	-	-	1.8
Hamilton	5.4	22.7	.7	28.8	.4	-	63.4	63.8	92.6
Herkimer	7.3	3.3	.4	11.0	-	-	6.3	6.3	17.3
Jefferson	.1	2.8	.2	3.1	5.3	-	.2	5.5	8.6
Lewis	4.8	12.1	1.4	18.3	7.9	-	13.8	21.7	40.0
Madison	.3	1.1	*	1.4	*	-	1.0	1.0	2.4
Montgomery	2.0	1.1	.2	3.3	*	-	.3	.3	3.6
Oneida	3.3	5.8	.3	9.4	.4	-	6.5	6.9	16.3
Onondaga	.5	*	-	.5	-	-	-	-	.5
Orange	-	*	-	*	-	-	-	-	*
Oswego	.3	4.8	*	5.1	*	-	.5	.5	5.6
Otsego	5.8	5.2	.2	11.2	.1	-	-	.1	11.3

Continued

Table 13.--Continued

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Putnam	-	0.1	-	0.1	-	-	*	*	0.1
Rensselaer	0.1	1.9	0.5	2.5	0.2	-	1.6	1.8	4.3
St. Lawrence	12.9	17.6	3.0	33.5	8.2	-	61.6	69.8	103.3
Saratoga	.1	13.9	14.4	28.4	1.3	-	17.5	18.8	47.2
Schenectady	-	.7	.1	.8	.1	-	.2	.3	1.1
Schoharie	4.5	3.6	.6	8.7	.1	-	.2	.3	9.0
Schuyler	.2	-	-	.2	-	-	-	-	.2
Sullivan	-	2.6	-	2.6	*	-	-	*	2.6
Tioga	-	*	-	*	-	0.1	1.1	1.2	1.2
Tompkins	-	*	-	*	.2	.1	.8	1.1	1.1
Ulster	-	.8	-	.8	-	-	-	-	.8
Warren	.8	19.4	12.8	33.0	2.3	-	24.4	26.7	59.7
Washington	-	7.3	3.9	11.2	.8	-	8.8	9.6	20.8
Total	101.4	175.7	70.8	347.9	37.5	4.1	362.8	404.4	752.3

[a] Counties with no production are omitted.

*Less than 50 cords.

Table 14.--Pulpwood production from roundwood in Pennsylvania, by county and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	All species
Adams	-	-	0.2	0.2	-	2.3	-	2.3	2.5
Allegheny	-	-	-	-	-	-	*	*	*
Armstrong	-	-	-	-	-	*	0.4	.4	.4
Bedford	-	-	5.4	5.4	1.0	30.8	21.2	53.0	58.4
Berks	-	-	.1	.1	-	.2	-	.2	.3
Blair	-	-	*	*	-	1.3	1.0	2.3	2.3
Bradford	-	*	2.9	2.9	5.9	5.0	23.4	34.3	37.2
Butler	-	-	-	-	-	.3	5.3	5.6	5.6
Cambria	-	-	.6	.6	-	.7	.7	1.4	2.0
Cameron	-	-	-	-	*	7.9	3.7	11.6	11.6
Carbon	-	-	-	-	.1	.5	1.9	2.5	2.5
Centre	-	-	.5	.5	.4	2.5	7.4	10.3	10.8
Clarion	-	-	.5	.5	-	.6	2.2	2.8	3.3
Clearfield	-	-	3.4	3.4	.6	35.2	25.0	60.8	64.2
Clinton	-	-	3.2	3.2	.3	5.9	7.1	13.3	16.5
Columbia	-	-	.3	.3	.1	.3	1.8	2.2	2.5
Crawford	-	-	-	-	-	*	1.7	1.7	1.7
Cumberland	-	-	.3	.3	-	5.4	-	5.4	5.7
Dauphin	-	-	.9	.9	-	2.9	-	2.9	3.8
Delaware	-	-	.1	.1	-	.1	-	.1	.2
Elk	-	-	.4	.4	.6	11.6	30.4	42.6	43.0
Erie	-	-	-	-	.1	.4	4.0	4.5	4.5
Fayette	-	-	*	*	.1	.8	.8	1.7	1.7
Forest	-	-	*	*	.1	29.7	22.7	52.5	52.5
Franklin	-	-	.3	.3	-	9.8	-	9.8	10.1
Fulton	-	-	1.8	1.8	.3	12.7	3.5	16.5	18.3
Huntington	-	-	2.8	2.8	*	18.8	.4	19.2	22.0
Indiana	-	-	2.1	2.1	-	-	*	-	2.1
Jefferson	-	-	3.5	3.5	.1	2.9	9.7	12.7	16.2
Juniata	-	-	1.2	1.2	-	.8	.2	1.0	2.2

Continued

Table 14.--Continued

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Lackawanna	-	-	-	-	0.5	0.8	1.4	2.7	2.7
Lancaster	-	-	*	*	-	.4		.4	.4
Lawrence	-	-	-	-	-	-	*	*	*
Lebanon	-	-	*	*	-	*	-	*	*
Lehigh	-	-	-	-	-	*	-	*	*
Luzerne	-	-	-	-	.4	2.4	8.2	11.0	11.0
Lycoming	-	-	1.6	1.6	1.0	4.5	15.9	21.4	23.0
McKean	-	-	*	-	.1	2.2	26.5	28.8	28.8
Mercer	-	-	-	-	-	*	.3	.3	.3
Mifflin	-	-	.1	.1	-	.1	-	.1	.2
Monroe	-	-	*	*	.1	1.5	2.6	4.2	4.2
Montour	-	-	.5	.5	-	*	-	*	.5
Northumberland	-	-	1.3	1.3	-	1.5	-	1.5	2.8
Perry	-	-	1.5	1.5	-	2.4	-	2.4	3.9
Pike	-	-	-	-	*	.2	.6	.8	.8
Potter	-	-	-	-	6.1	10.2	31.3	47.6	47.6
Schuylkill	-	-	3.1	3.1	*	18.7	.5	19.2	22.3
Snyder	-	-	1.1	1.1	-	-	-	*	1.1
Somerset	-	-	.6	.6	.2	2.7	2.3	5.2	5.8
Sullivan	-	*	.5	.5	3.4	4.2	20.2	27.8	28.3
Susquehanna	-	0.6	.1	.7	1.0	4.1	14.7	19.8	20.5
Tioga	-	-	.1	.1	7.1	5.2	17.5	29.8	29.9
Union	-	-	.1	.1	.1	.3	1.3	1.7	1.8
Venango	-	-	-	-	-	1.4	8.6	10.0	10.0
Warren	-	-	*	*	.1	5.3	24.6	30.0	30.0
Wayne	-	.1	-	.1	.1	.9	2.4	3.4	3.5
Westmoreland	-	-	*	*	-	-	-	*	*
Wyoming	-	.1	-	.1	2.6	4.8	13.5	20.9	21.0
York	-	-	1.0	1.0	-	5.6	-	5.6	6.6
Total	-	0.8	42.1	42.9	32.5	268.8	366.9	668.2	711.1

[a] Counties with no production are omitted.

*Less than 50 cords.

Table 15.--Pulpwood production from roundwood in Delaware, Maryland, and New Jersey, by county and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
				DELAWARE					
Kent	-	-	10.4	10.4	-	-	*	*	10.4
Sussex	-	-	9.5	9.5	-	0.3	-	0.3	9.8
Total	-	-	19.9	19.9	-	0.3	-	0.3	20.2
				NEW JERSEY					
Burlington	-	-	0.1	0.1	-	-	-	-	0.1
Total	-	-	0.1	0.1	-	*	-	*	0.1

Continued

Table 15.--Continued

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
				MARYLAND					
Allegany	-	-	6.6	6.6	0.5	19.1	13.8	33.4	40.0
Anne Arundel	-	-	12.3	12.3	-	.7	.3	1.0	13.3
Baltimore	-	-	3.3	3.3	-	3.6	-	3.6	6.9
Calvert	-	-	.3	.3	-	.8	-	.8	1.1
Carroll	-	-	.1	.1	-	*	-	*	.1
Cecil	-	-	.7	.7	-	-	-	*	.7
Charles	-	-	6.4	6.4	-	1.4	-	1.4	7.8
Dorchester	-	-	7.1	7.1	-	-	.1	.1	7.2
Frederick	-	-	-	*	-	.8	-	.8	.8
Garrett	-	-	7.9	7.9	.4	16.0	11.2	27.6	35.5
Harford	-	-	*	*	*	.1	-	.1	.1
Prince Georges	-	-	6.8	6.8	*	.4	.2	.6	7.4
St. Marys	-	-	1.9	1.9	-	*	*	*	1.9
Montgomery	-	-	*	*	-	*	-	*	*
Somerset	-	-	9.4	9.4	-	-	1.7	1.7	11.1
Washington	-	-	1.2	1.2	*	2.7	.7	3.4	4.6
Wicomico	-	-	33.8	33.8	-	-	.5	.5	34.3
Worcester	-	-	11.7	11.7	-	-	1.9	1.9	13.6
Total	-	-	109.5	109.5	0.9	45.6	30.4	76.9	186.4

[a] Counties with no production are omitted.
*Less than 50 cords.

Table 16.--Pulpwood production from roundwood in West Virginia, by county and species group, 1989

(In thousands of standard cords)

County[a]	Softwood				Hardwood				All species
	Spruce and fir	Hemlock and tamarack	Pine	Total	Aspen and yellow-poplar	Oak and hickory	Other hardwood	Total	
Barbour	-	-	-	-	-	*	*	*	*
Berkeley	-	-	5.5	5.5	0.2	0.7	0.5	1.4	6.9
Cabell	-	-	.9	.9	.1	.2	.2	.5	1.4
Calhoun	-	-	*	*	-	-	-	-	*
Fayette	-	-	.2	.2	*	*	26.8	26.8	27.0
Grant	-	-	1.6	1.6	2.0	6.7	4.9	13.6	15.2
Greenbrier	-	-	3.5	3.5	*	.1	48.9	49.0	52.5
Hampshire	-	-	16.5	16.5	2.8	9.1	6.7	18.6	35.1
Hardy	-	-	2.4	2.4	1.3	4.2	3.1	8.6	11.0
Jackson	-	-	2.5	2.5	.1	.2	.4	.7	3.2
Kanawha	-	-	1.7	1.7	.2	.3	.5	1.0	2.7
Lincoln	-	-	.9	.9	.1	.2	.2	.5	1.4
Mason	-	-	7.9	7.9	.3	.7	.9	1.9	9.8
Mineral	-	-	3.9	3.9	2.3	7.7	5.6	15.6	19.5
Monroe	-	-	1.8	1.8	-	-	9.1	9.1	10.9
Morgan	-	-	4.5	4.5	.5	1.6	1.2	3.3	7.8
Nicholas	-	-	2.9	2.9	-	-	25.5	25.5	28.4
Pendleton	-	-	5.8	5.8	.4	1.4	15.7	17.5	23.3
Pleasants	-	-	.2	.2	-	5.0	3.3	8.3	8.5
Pocahontas	-	-	1.5	1.5	.1	.5	12.2	12.8	14.3
Preston	-	-	.9	.9	.7	2.4	1.8	4.9	5.8
Putnam	-	-	1.8	1.8	.4	.8	1.2	2.4	4.2
Raleigh	-	-	-	-	-	-	2.8	2.8	2.8
Randolph	-	-	.2	.2	1.3	4.4	3.5	9.2	9.4
Ritchie	-	-	3.6	3.6	.3	.9	.7	1.9	5.5
Roane	-	-	1.1	1.1	.1	.2	.2	.5	1.6
Summers	-	-	.2	.2	-	-	1.9	1.9	2.1
Wirt	-	-	1.7	1.7	.1	.2	.2	.5	2.2
Wood	-	-	.6	.6	*	.1	*	.1	.7
Total	-	-	74.3	74.3	13.3	47.6	178.0	238.9	313.2

[a] Counties with no production are omitted.

*Less than 50 cords.

Table 17.--Bark generated from roundwood pulpwood in the Northeast, by state and species group, 1989

(In million cubic feet)

State[a]	Softwood			Hardwood			All species		
	Used	Unused	Total	Used	Unused	Total	Used	Unused	Total
Kentucky	0.9	-	0.9	5.3	-	5.3	6.2	-	6.2
Maine	21.1	-	21.1	13.4	1.3	14.7	34.5	1.3	35.8
Maryland	1.3	-	1.3	2.2	-	2.2	3.5	-	3.5
New Hampshire	.4	-	.4	3.6	-	3.6	4.0	-	4.0
New York	3.6	0.9	4.5	2.9	.2	3.1	6.5	1.1	7.6
Ohio	.3	-	.3	4.4	-	4.4	4.7	-	4.7
Pennsylvania	1.2	-	1.2	7.0	.3	7.3	8.2	.3	8.5
Vermont	-	.1	.1	-	-	-	-	.1	.1
Total	28.8	1.0	29.8	38.8	1.8	40.6	67.6	2.8	70.4

[a] States with no pulpmills are omitted.

Table 18.--Harvest intensity: Pulpwood roundwood removals per acre of timberland in the Northeast, 1989

State	Pulpwood harvest	Timberland	Harvest[a] per acre
	Cords	Acres[b]	Cubic feet
Connecticut	1,900	1,777,300	.09
Delaware	20,200	388,200	4.42
Kentucky	247,900	12,347,400	1.71
Maine	3,374,900	17,060,200	16.81
Maryland	186,400	2,424,000	6.54
Massachusetts	21,400	2,952,000	.61
New Hampshire	450,300	4,812,100	7.95
New Jersey	100	1,857,000	*
New York	752,300	15,405,800	4.15
Ohio	361,500	6,917,100	4.44
Pennsylvania	711,100	15,923,700	3.80
Rhode Island	-	371,700	-
Vermont	418,900	4,422,100	8.05
West Virginia	313,200	11,917,700	2.23
Total	6,860,100	98,576,300	5.92

[a] Conversion factor of 85 cubic feet per cord used.

[b] Most recent estimates of timberland by U. S. Department of Agriculture, Forest Service.

*Less than 0.01 ft ^{3} per acre.

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Widmann, Richard H. 1991. **Pulpwood production in the Northeast--1989.** Resour. Bull NE-119. Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 28 p.

This annual report contains 1989 information compiled from a canvass of all pulpmills that use pulpwood produced in the 14 Northeastern states. Contains data about pulpwood production and consumption from roundwood by county and species groups, and pulpwood chip production from manufacturing residues by state. Comparisons are made with the previous year's data. Trends in pulpwood production are shown graphically.

Keywords: Residue, timber output, harvest

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